

# NEW DISTRIBUTION RECORDS FOR SEVERAL BUTTERFLY SPECIES, INCLUDING *DEUDORIX DEMOCLES* (MISKIN) (LEPIDOPTERA: LYCAENIDAE), FROM WESTERN CAPE YORK PENINSULA

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## Abstract

*Deudorix democles democles* (Miskin), *Ypthima arctoa arctoa* (Fabricius), *Euploea darchia niveata* (Butler) and *Euchrysops cnejus cnidus* Waterhouse & Lyell are newly recorded from Kowanyama, Cape York Peninsula, and *Zizina labradus* (Godart) is newly recorded from Weipa. Specimens of *D. democles* from Kowanyama are discussed and illustrated.

## Introduction

The known distribution of the white-spotted flash butterfly, *Deudorix democles democles* (Miskin), was previously restricted to northeastern Queensland. Its distribution was described by Abrahams *et al.* (1995) as occurring widely throughout the Peninsula south to Undara Crater. However, Braby (2000) more precisely described its distribution as occurring from Prince of Wales Island to the Basilisk Range near Innisfail on the eastern coast, extending inland through Chillagoe to Undara lava tubes near Mt Surprise. The type locality is the Basilisk Range near Johnstone River, now known as Innisfail.

Its life history was described by Waterhouse (1938), based on information and pupae provided to him by two entomologists, L. Franzen and M. J. Manski, who first collected the immature stages of this species on berries of the scrambler *Strychnos minor* (Loganiaceae) near the Barron River, Cairns. Monteith and Hancock (1977) recorded it breeding in *Strychnos lucida* R.Br.

## Discussion

While on a recent visit to Kowanyama on 30 July 2010, a cursory inspection of the town's 'Magnificent Creek' area revealed a tree with orange globular berries that captured the author's attention. The tree was identified as the strychnine bush, *Strychnos lucida* (Loganiaceae), a small, deciduous tree up to 5 m in height that usually grows in monsoon vine thickets on sand and rocky limestone outcrops. The tree is distributed from northern Queensland through the Northern Territory and into NW Western Australia (Abrahams *et al.* 1995).

The fruit were examined for signs of activity of the lycaenid butterfly genus *Deudorix* Hewitson and the first fruit examined yielded an unhatched pupa. Further low-hanging fruit were examined and these yielded a number of larvae and pupae, along with several empty pupal cases (Fig. 1).

Some of the pupae were attended by small black *Crematogaster* ants. Further examination of the riparian thickets along the creek edges revealed a number

of the larval food plant trees. While time did not permit an extensive search for more trees, local resident Viv Sinammon (pers. comm.) confirmed that the trees were very common along Magnificent Creek. No adults were sighted during the visit, which was not unusual given that the adults are rarely seen (Braby 2000).

On first examination, the larvae and pupa appeared to resemble the *D. democles* that the author had previously collected in *Strychnos* fruit near Chillagoe. The larvae and pupae were taken back to Cairns along with some spare fruit to be reared in captivity.

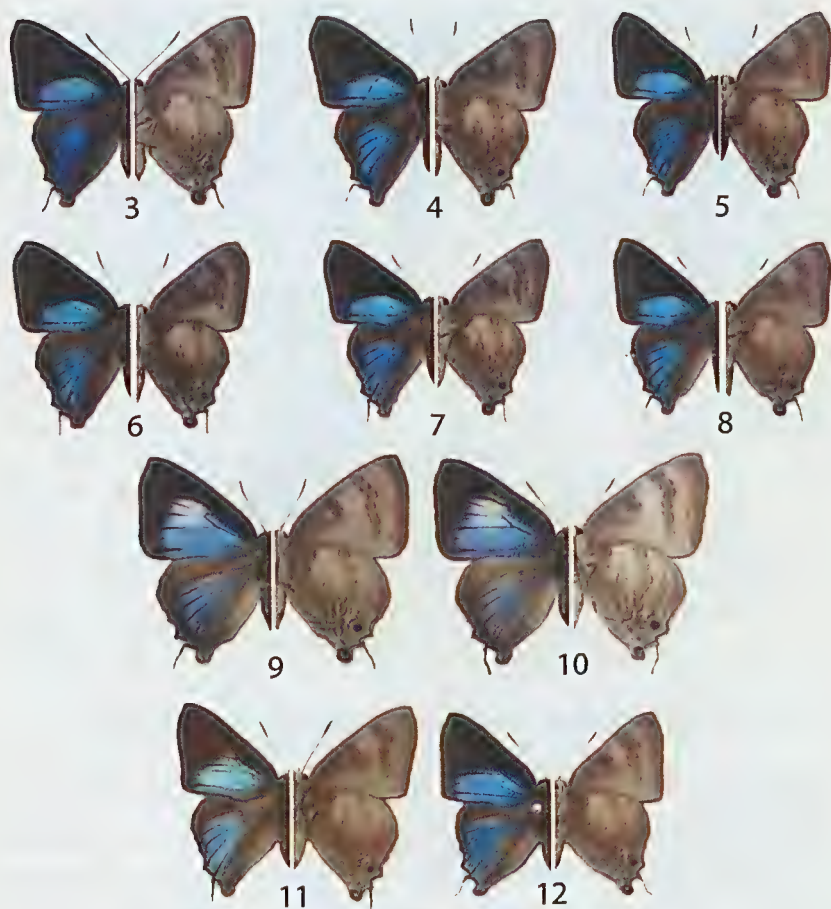
It was noted that although the closely related species *Deudorix smilis dalyensis* (Le Souef & Tindale, 1970) also utilises *Strychnos lucida* as its host plant, the known distribution of that species is currently confined to the Northern Territory (Braby 2000).

The first adults began to emerge on 4 August 2010 and proved to be *D. democles* (Fig. 2). They appeared to show some minor variation in the extent of blue on the upperside and the extent of white colouration on the underside. Comparison with specimens bred from Chillagoe also showed some minor variation, as shown in Figs 3-12. It is interesting to note that of the 14 adults that emerged, 12 were male. Voucher specimens are retained in the author's personal collection (MHC).



**Figs 1-2.** *Deudorix democles*. (1) unhatched pupa inside empty husk of berry; (2) adult female, emerged 4 August 2010.

The distribution map shown below (Fig. 13) represents a combination of the distribution data of Dunn and Dunn (2006) overlayed on the distribution map of Braby (2004). The Kowanyama population extends the species distribution from the known populations around Lakefield National Park and Chillagoe to the western side of the Cape, a distance of some 250 km. This species is likely to be more widely distributed throughout Cape York Peninsula than present records indicate. Irregular survey in the remote western areas of the Cape means our knowledge of the distribution of *D. democles* and other butterflies remains incomplete; most butterfly records from this area emanate from the study of Hancock and Monteith (2004).



**Figs 3-12.** Adult *Deudorix democles democles*. (3-8) males from Kowanyama, Qld; (9-10) females from Kowanyama, Qld; (11) male from Saltwater Creek, 50 km E of Musgrave, Qld (Lakefield National Park); (12) male from near Chillagoe, Qld.

#### **Other new records from Kowanyama**

Hancock and Monteith (2004) provided 17 new records for butterfly species from Kowanyama, based on a field trip there from 7-14 January 1977. In addition to their list of new and confirmed species, three additional species (*Ypthima arctoa arctoa* (Fabricius), *Euploea darchia niveata* (Butler) and *Euchrysops cnejus cnidus* Waterhouse & Lyell) are added here (Table 1), together with an additional record (*Zizina labradus* (Godart)) for Weipa.

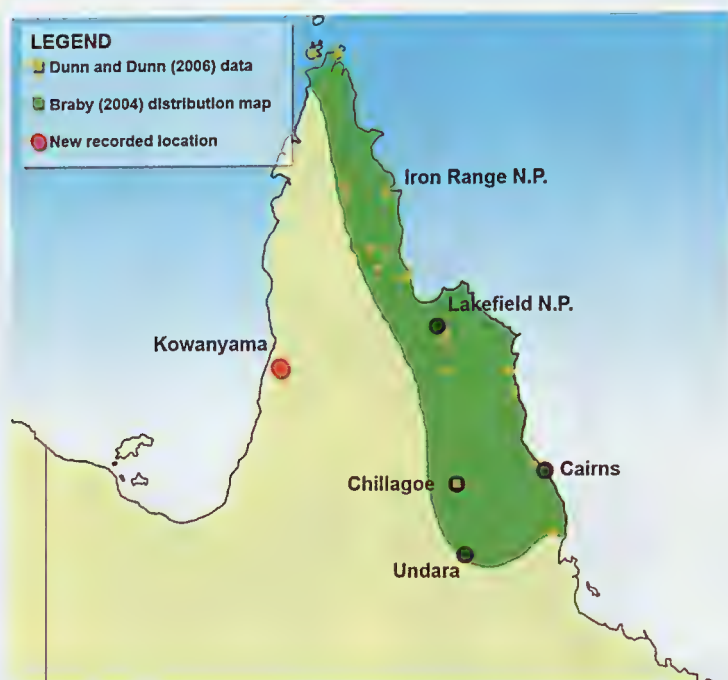


Fig. 13. Existing distribution map of *Deudorix democles* with new range extension.

Table 1. New records for butterflies from Kowanyama and Weipa, western Cape York Peninsula.

Family / Species	Comments
<b>NYMPHALIDAE</b>	
<i>Ypthima arctoa arctoa</i> (Fabricius)	Found commonly along Magnificent Creek, Kowanyama.
<i>Euploea darchia niveata</i> (Butler)	Single adult observed at close range, Magnificent Creek, Kowanyama.
<b>LYCAENIDAE</b>	
<i>Euchrysops cnejus cnidus</i> Waterhouse & Lyell	Common and widespread in Kowanyama.
<i>Zizina labradus labdalon?</i> Waterhouse & Lyell	Hancock and Monteith (2004) recorded this species from Kowanyama, but not Weipa. A specimen of <i>Zizina labradus</i> (Godart) was observed in Kowanyama but its subspecific status was not confirmed. Many specimens of <i>Z. labradus</i> were observed in the township of Weipa in November 2005.



### Acknowledgement

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